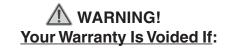
# **CHICAGO POWER ELECTRIC SYSTEMS GENERATOR** 2.4 HP - 1000 WATT

Model 93881

## **ASSEMBLY AND OPERATING INSTRUCTIONS**



Due to continuing improvements, actual product may differ slightly from the product described herein.



You do not put <u>engine oil</u> in the Engine's crankcase prior to its first use. Before each use, check the oil level. Never run the Engine with low or no engine oil. Running the Engine with low or no oil will permanently damage the unit.



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## PRODUCT SPECIFICATIONS

Item	Description
Electrical Requirements	1,000 Watts Maximum Output 120 VAC, 3-Prong, Outlet (Qty. 2) With 8 AMP, Push Button, Circuit Breaker Protection 12 VDC Outlet (Qty. 1) With 12 AMP, Push Button, Circuit Breaker Protection Generator Type: Brushless, Revolving Field, Self-Exciting, 2-Pole, Single Phase
Engine	<ul> <li>2.4 HP / Air Cooled OHV Mitsubishi Engine GT240 – EPA approved.</li> <li>4-Stroke / Recoil Start / 3,600 RPM</li> <li>Unleaded Gasoline Powered / MTI</li> <li>Fuel Tank Capacity: 1.2 Gallon (Approx.) – use unleaded gasoline</li> <li>Engine Oil Capacity: 1/2 Quart (Approx.) / Recommended Oil: 10W – 30W</li> <li>Approximate Run Time: 5 Continuous Hours @ Full Tank</li> <li>Additional Features: Automatic Low Oil Shutdown</li> </ul>
Operating Noise Level	63 Db
Accessories	Spark Plug Wrench (Qty. 1) / Screwdriver (Qty. 1)
Overall Dimensions	17-3/8" L x 13" W x 14-1/2" H
Net Weight	67 Pounds

NOTE: Not CARB - approved for use in California.

## SAVE THIS MANUAL

You will need this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures, parts list and assembly diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep this manual and invoice in a safe and dry place for future reference.

## **GENERAL SAFETY RULES AND PRECAUTIONS**

WARNING! READ AND UNDERSTAND ALL INSTRUCTIONS Failure to follow all instructions listed below may result in electric shock, fire, and/or serious injury. SAVE THESE INSTRUCTIONS

## WORK AREA

1. **Keep your work area clean and well lit.** Cluttered benches and dark areas invite accidents.



Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust. Power tools create sparks which may ignite the dust or fumes.

3. **Keep bystanders, children, and visitors away while operating a power tool.** Distractions can cause you to lose control. Provide barriers or shields as needed.

## PERSONAL SAFETY

- 1. Stay alert. Watch what you are doing, and use common sense when operating a power tool. Do not use a power tool while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating power tools may result in serious personal injury.
- 2. Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts. Loose clothes, jewelry, or long hair can be caught in moving parts.
- 3. Avoid accidental starting. Be sure the Power Switch (14) is in its "OFF" position before moving the Generator *and* before performing any service, maintenance, or cleaning procedures on the unit.
- 4. **Remove adjusting keys or wrenches before turning the Generator on.** A wrench or a key that is left attached to a rotating part of the machine may result in personal injury.
- 5. **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the power tool in unexpected situations.
  - Use safety equipment. Always wear eye protection. Always wear ANSI-approved safety impact goggles when using this product. ANSI-approved hearing protection must also be used.

6.

#### TOOL USE AND CARE

- 1. **Do not force the tool. Use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it is designed.
- 2. Do not use the Generator if the Engine's Power Switch (14) does not turn it on or off. Any tool that cannot be controlled with its power switch is dangerous and must be replaced.
- 3. **Store idle tools out of reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
- 4. **Maintain tools with care.** Properly maintained tools are less likely to malfunction and are easier to control. Do not use a damaged tool. Tag damaged tools "**Do not use**" until repaired.

- 5. Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tool's operation. If damaged, have the tool serviced before using. Many accidents are caused by poorly maintained tools.
- 6. Use only accessories that are recommended by the manufacturer for your **model.** Accessories that may be suitable for one tool may become hazardous when used on another tool.

## SERVICE

- 1. **Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel could result in a risk of injury.
- 2. When servicing a tool, use only identical replacement parts. Follow instructions in the *"Inspection, Maintenance, And Cleaning"* section of this manual. Use of unauthorized parts or failure to follow maintenance instructions may create a risk of electric shock or injury.

## SPECIFIC SAFETY RULES AND PRECAUTIONS

- 1. MARNING! Your Warranty is voided if:
  - **A.** You do not put <u>engine oil</u> in the Engine's crankcase prior to its first use. Before each use, check the oil level. Never run the Engine with low or no engine oil. Running the Engine with low or no oil will permanently damage the unit.
- 2. **Maintain labels and nameplates on the Generator.** These carry important information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
- 3. Make sure the Generator is located on a flat, level, sturdy surface capable of supporting the weight of the Generator and any additional tools and equipment.
- 4. Industrial applications must follow OSHA guidelines.
- 5. **Never stand on the Generator.** Serious injury could result if the Generator is tipped.
- 6. **Never leave the Generator unattended when it is running.** Turn off the Engine before leaving.

- 7. Do not allow children and other unauthorized people to handle or play with the Generator.
- 8. This Generator is designed for outdoor use only. Do not operate the Generator in a closed area or in a poorly ventilated area. When running, the Engine of this Generator produces carbon monoxide, a colorless, odorless, toxic fume that, when inhaled, can cause serious personal injury or death. Whenever possible, use a carbon monoxide detector (not included) to detect excessive carbon monoxide fumes in the work area and in the surrounding area.
- 9. **Do not force the Generator.** This tool will do the work better and safer at the speed and capacity for which it was designed.

## FIRE AND EXPLOSION PRECAUTIONS

- 1. **Gasoline fuel and fumes are flammable, and potentially explosive.** Use proper fuel storage and handling procedures. Always have multiple ABC class fire extinguishers nearby.
- 2. Keep the Generator, its Engine, and surrounding areas clean at all times.
- 3. When spills of fuel or oil occur, they must be cleaned up immediately. Dispose of fluids and cleaning materials as per any local, state, or federal codes and regulations. Store oil rags in a covered metal container.
- 4. Never store fuel or other flammable materials near the Generator.
- 5. **Do not smoke, or allow sparks, flames, or other sources of ignition around the Generator.**
- 6. Keep grounded conductive objects, such as tools, away from exposed, live electrical parts and connections to avoid sparking or arcing. These events could ignite fumes or vapors.
- 7. **Do not refill the Fuel Tank while the Engine is running or while the Engine is still hot.** Do not operate the Generator with known leaks in the fuel system.
- 8. Use only Engine manufacturer recommended fuel and oil.

## MECHANICAL PRECAUTIONS

1. Prior to performing service, maintenance, or cleaning procedures, always make sure the Engine's Power Switch (14) is in its "OFF" position. Allow

the Engine and Generator to completely cool. Then, remove the spark plug from the Engine.

- 2. Do not alter or adjust any part of the Generator or Engine that is assembled and supplied by the manufacturer.
- 3. Always follow and complete scheduled Generator and Engine maintenance.

## CHEMICAL PRECAUTIONS

- 1. Avoid contact with hot fuel, oil, exhaust fumes, and solid surfaces.
- 2. Avoid body contact with fuels, oils, and lubricants used in the Generator and Engine. If swallowed, seek medical treatment immediately. Do not induce vomiting if fuel is swallowed. For skin contact, immediately wash with soap and water. For eye contact, immediately flush eyes with clean water.

## NOISE PRECAUTIONS

1. **Prolonged exposure to high noise levels is hazardous to hearing.** Always wear ANSI approved hearing protection when operating or working around the Generator when it is running.

## ELECTRICAL PRECAUTIONS

- 1. All connections and conduits from the Generator to the load must only be installed by trained and licensed electricians, and **in compliance with all relevant local, state, and federal electrical codes and standards, and other regulations where applicable.**
- 2. The Generator must be earth-grounded in accordance with all relevant electrical codes and standards before operation.
- 3. If an extension cord (not included) is used, make sure to use only UL<sup>®</sup> listed cords having the correct gauge and length. **(See Figure A, <u>next page</u>.)**
- 4. Do not attempt to connect or disconnect load connections while standing in water, or on wet or soggy ground.
- 5. Do not touch electrically energized parts of the Generator and interconnecting cables or conductors with any part of the body, or with any non-insulated conductive object.

- 6. Connect the Generator only to a load or electrical system (120 volt) that is compatible with the electrical characteristics and rated capacities of the Generator.
- 7. Be sure the Power Switch (14) is in its "OFF" position before moving the Generator *and* before performing any service, maintenance, or cleaning procedures on the unit.
- 8. Keep all electrical equipment clean and dry. Replace any wiring where the insulation is cracked, cut, abraded, or otherwise degraded. Replace terminals that are worn, discolored, or corroded. Keep terminals clean and tight.
- 9. Insulate all connections and disconnected wires.
- 10. Guard against electric shock. Prevent body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerator enclosures.

RECOMME		UM WIRE GAU	GE FOR EXTEN	SION CORDS (	120 VOLT)*
NAMEPLATE AMPERES (At Full Load)	EXTENSION CORD LENGTH				
	25	50	75	100	150
	Feet	Feet	Feet	Feet	Feet
0 - 2.0	18	18	18	18	16
2.1 - 3.4	18	18	18	16	14
3.5 - 5.0	18	18	16	14	12
5.1 - 7.0	18	16	14	12	12
7.1 – 12.0	18	14	12	10	-
12.1 - 16.0	14	12	10	-	-
16.1 - 20.0	12	10	-	-	-
FIGURE A	*Based on limiting the line voltage drop to five volts at 150% of the rated amperes.				

11. Use only Class BC or Class ABC fire extinguishers on electrical fires.

## MISC. PRECAUTIONS

- 1. **WARNING!** People with pacemakers should consult their physician(s) before using this product. Operation of electrical equipment in close proximity to a heart pacemaker could cause interference to or failure of the pacemaker.
- 2. **WARNING!** The warnings and precautions discussed in this manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

## UNPACKING

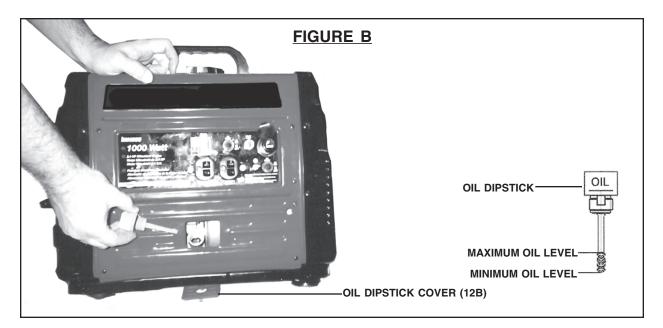
When unpacking, check to make sure all the parts shown on the **Parts Lists on pages 17**, **18**, **and 19** are included. If any parts are missing or broken, please call Harbor Freight Tools at the number shown on the cover of this manual as soon as possible.

## ASSEMBLY INSTRUCTIONS

1. **CAUTION!** Always make sure the Power Switch (14) of the Engine is in its "**OFF**" position prior to performing any service, maintenance, or cleaning of the Generator or Engine.

#### To Add Engine Oil:

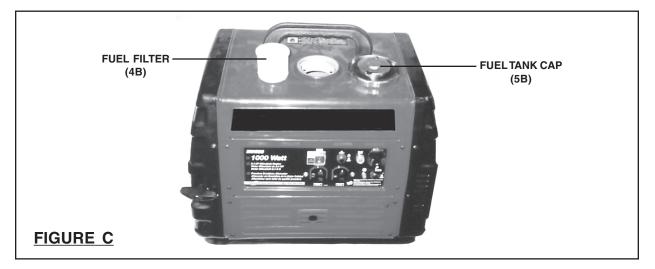
- 1. **IMPORTANT!** Prior to first using the Generator, the Engine <u>MUST</u> be filled with a high quality 10W-30 grade engine oil. (See Figure B.)
- To do so, remove the Oil Dipstick Cover (12B). Then, *unscrew* and remove the Engine Oil Dipstick. Pour approximately 1/2 quart of engine oil into the Dipstick Hole. Do not overfill.
   (See Figure B.)
- 3. Clean the Oil Dipstick. Then screw the Dipstick fully back into the Dipstick Hole. Unscrew and remove the Oil Dipstick again, and observe the level of engine oil on the Dipstick. The oil level should appear between the "**MINIMUM**" and "**MAXIMUM**" indicator marks on the Oil Dipstick. (See Figure B.)



- If necessary, continue adding engine oil, while rechecking the Oil Dipstick, until the oil level reaches the "MAXIMUM" indicator on the Oil Dipstick.
   <u>Do not exceed the "MAXIMUM" indicator mark on the Oil Dipstick.</u> (See Figure A.)
- 5. When finished adding engine oil, carefully screw the Oil Dipstick back into the Dipstick Hole. Then, replace the Oil Dipstick Cover (12B). (See Figure B.)

#### To Fill The Fuel Tank:

- 1. Prior to first using the Generator, the Fuel Tank (19B) <u>MUST</u> be filled with **unleaded** gasoline. (See Figure C.)
- To do so, remove the Fuel Tank Cap (5B) and fill the Fuel Tank with unleaded gasoline. Then, replace the Fuel Tank Cap. Thereafter, check the Fuel Tank (19B) for the amount of unleaded gasoline. When necessary, refill the Fuel Tank. (See Figure C.)
- 3. **NOTE:** Periodically, make sure to check the Fuel Filter (4B) for excessive dirt and debris. If necessary, remove the Fuel Filter and clean with compressed air. **(See Figure C.)**



#### Installation:

- 1. Electrical and other permits may be required for the installation of emergency or portable power systems. Investigate the local building and electrical codes before installing this unit.
- 2. Prior to providing Generator power to tools and equipment, make sure the Generator's rated voltage, wattage, and amperage capacity is adequate to

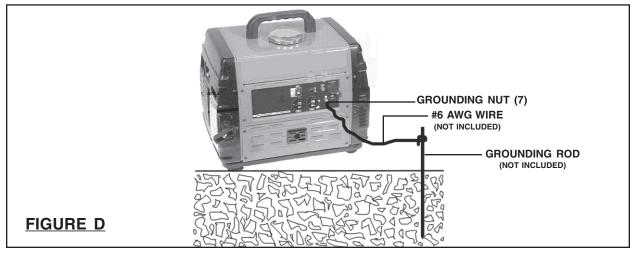
supply all electrical loads the unitwill power. If powering exceeds the Generator's capacity, it may be necessary to group one or more of the tools/equipment for connection to a separate Generator.

#### **General Location:**

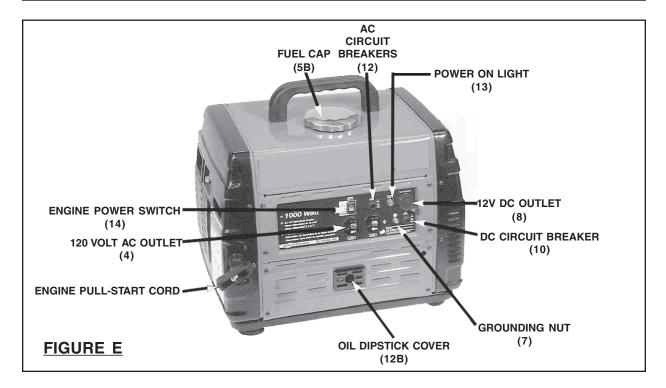
- 1. It is recommended to locate the Generator (outdoors only) where cooling air is readily available. Locate the Generator so that the air inlets and outlets are not blocked by obstructions such as bushes, trees, or snow drifts. Locating it in the path of heavy winds or snowdrifts may require the placement of a barrier for protection. The air inlet, in normal weather conditions, should face the prevailing wind direction.
- 2. Locate the Generator on a concrete slab or other area where rain drainage or flood waters can not reach it.
- 3. Generator placement should allow four feet of access to all sides for maintenance and for proper air cooling.
- 4. Place the Generator as close as possible to the electrical tools and equipment being powered to reduce the length of extension cords.

#### Grounding The Generator:

- 1. **NOTE:** It is recommended that only a trained and licensed electrician perform this procedure.
- Connect a #6 AWG grounding wire (not included) from the Grounding Nut (7) on the Generator to a grounding rod (not included) that has been driven at least 24 inches deep into the earth. The grounding rod must be an earth-driven copper or brass rod (electrode) which can adequately ground the Generator. (See Figure D.)



## **PRODUCT FEATURES**



- 1. Engine Power Switch (14): Starts and stops the Gasoline Engine. (See Figure E.)
- 2. **Fuel Cap (5B):** <u>NEVER</u> run the Engine with the Fuel Cap removed. (See Figure E.)
- 3. **AC Circuit Breakers (12):** Each of the *two* 120 Volt AC Outlets has a Circuit Breaker to protect the Generator from overloading. Should a Circuit Breaker "trip", unplug all electrical loads from the Generator. Allow the Generator to cool down. Then, push the Circuit Breaker and restart the Engine. **(See Figure E.)**
- 4. **Power On Light (13):** Indicates voltage is being provided by the Generator. **(See Figure E.)**
- 12V DC Outlet (8): Supplies voltage to 12 volt DC appliances such as radios, emergency lights, etc. IMPORTANT: This Outlet is designed for operating 12 volt DC appliances only. Do not attempt to charge batteries with this Outlet. (See Figure E.)
- 6. **DC Circuit Breaker (10):** The 12 Volt DC Outlet has a Circuit Breaker to protect the Generator from overloading. Should a Circuit Breaker "trip", unplug all electrical loads from the Generator. Allow the Generator to cool down. Then, push

the Circuit Breaker and restart the Engine. (See Figure E.)

- 7. **Grounding Nut (7):** Use this feature to attach a ground wire to an external earth ground. **(See Figures D and E.)**
- 8. **Oil Dipstick Cover (12B):** Remove this Cover to fill and check the level of Engine oil. (See Figures B and E.)
- 9. Engine Pull-Start Cord: Grasp the Handle of the Pull-Start Cord and rapidly pull the Handle to start the Engine. It may take one or more pulls on the Handle to start the Engine. (See Figure E.)
- 10. **120V AC Outlet (4):** Two 120 Volt Outlets supply power to 120 volt appliances, tools, and equipment. **(See Figure E.)**

## OPERATING INSTRUCTIONS

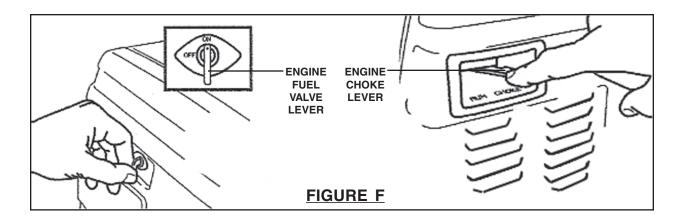
#### **IMPORTANT**:

Before operation, it will be necessary to refer to the Engine manufacturer's *"Operation, Maintenance, and Parts"* manual (included) for detailed information about starting, running, stopping, and maintaining the Engine.

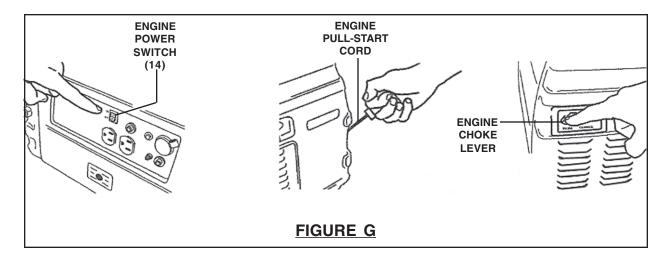
- 1. Check to make sure the Engine Power Switch (14) is in its "**OFF**" position. **(See Figure E.)**
- 2. **CAUTION!** Make sure to unplug any load from the Generator before starting to prevent permanent damage to any appliances, tools, or equipment.
- 3. CAUTION! Engine oil MUST be added to the Engine's crankcase prior to starting and running the Engine. Failure to add oil, according to the Engine manufacturer's recommendations, will damage the Engine and void its warranty. (See page 8, and Figure B.)
- 4. Before the first use, the Fuel Tank (19B) must be filled with unleaded gasoline. **(See page 9, and Figure C.)** 
  - A. A WARNING! Never fill the Fuel Tank (19B) completely. Fill the Fuel Tank to 1/2" below the bottom of the filler neck to provide space for fuel expansion. Wipe any fuel spills from the Engine and Generator before starting the Engine.
  - **B. WARNING!** Never fill the Fuel Tank (19B) when the Engine is running or hot. Do not smoke when filling the Fuel Tank.

#### To Start The Engine/Generator:

1. Turn the Engine Fuel Valve Lever to its "**OPEN**" position. Then, turn the Engine Choke Lever to its "**CHOKE**" position. **NOTE:** No choke is required if the Engine is warm. Make sure the Engine Choke Lever is in the "**RUN**" position when starting a warm Engine. (See Figure F.)



- 2. Turn the Engine Power Switch (14) to its "**ON**" position. (See Figure G.)
- 3. Grasp the Handle on the Engine Pull-Start Cord and pull slowly until resistance is felt. Allow the Cord to rewind slowly. Then, pull the Handle with a rapid, full arm stroke. Allow the Cord to rewind slowly. If necessary, repeat this procedure until the Engine starts. **(See Figure G.)**
- 4. When the Engine starts, slowly turn the Engine Choke Lever to its "**RUN**" position. (See Figure G.)
- 5. **IMPORTANT:** Allow the Generator to run at no load for five minutes after each start-up so that the Engine and Generator can stabilize.



#### To Connect Electrical Loads:

- 1. Start the Engine, and allow the Engine and Generator to run and warm up for five minutes after starting with no electrical load.
- 2. **WARNING!** Connect 120V AC appliances, tools, and equipment **only** to the two 120V AC Outlets. Connect 12V DC appliances, tools, and equipment **only** to the 12V DC Outlet. **(See Figure E.)**
- 3. **CAUTION!** Never exceed the rated capacity for this Generator, as serious damage to the Generator and/or appliances, tools, and equipment could result from an overload. Starting and running wattage requirements should always be calculated when matching this Generator's wattage capacity to the appliance, tool, or equipment.
- Most appliances, tools, and equipment will list on the motor nameplate the starting and running voltage and amperage requirements. Use the following formula to convert voltage and amperage to wattage:
   Volts x AMP = Watts (example: 120 volts x 3 AMPs = 360 Watts)
- 5. To determine the approximate wattage requirement for most appliances, tools, and equipment with "inductive" type motors, multiply the wattage that was calculated by 2 times to assure adequate Generator capacity.
- 6. **NOTE:** The starting and running wattage for "resistant" loads are the same. Example: a 100 Watt light bulb requires only 100 Watts to start. Most resistant loads will be listed in wattage.
- 7. Always power the largest electric motor first. Then, plug in other appliances, tools, and equipment one at a time.

**A.** Connect "inductive" load appliances, tools, and equipment first. Inductive loads consist of small hand tools and some small appliances. Connect the items that require the most wattage first.

**B.** Connect any lights next.

**C.** Voltage sensitive appliances, tools, and equipment should be the last to be connected to the Generator. Plug voltage sensitive items such as T.V.'s, VCR's, microwaves, and cordless telephones into a  $U^{\mathbb{C}}$  listed voltage surge protector (not included). Then, connect the UL Listed surge protector into the Generator.

8. **CAUTION!** Failure to connect and operate appliances, tools, and equipment in this sequence can cause damage to the Generator, appliances, tools, and equipment and will void the warranty on this Generator.

- 9. Once the Engine is running, simply connect the 120 volt appliances, tools, and equipment into the 120V AC Outlets (4) and/or connect a 12 volt appliance, tool, or equipment into the 12V DC Outlet (8). (See Figure E.)
- 10. **IMPORTANT:** If Engine speed or voltage fluctuates with a load below 250 Watts, move the Engine Choke Lever to the "**HALF-CHOKE**" position. **(See Figure G.)**
- 11. When finished using the Generator, disconnect all electrical loads. Turn the Engine Power Switch (14) to its "**OFF**" position to stop the Engine. Then, close the Engine Fuel Valve Lever. **(See Figures E and F.)**

## INSPECTION, MAINTENANCE, AND CLEANING

- 1. **WARNING!** Always make sure the Power Switch (14) of the Engine is in its "**OFF**" position prior to performing any service, maintenance, or cleaning of the Generator or Engine. **(See Figure E.)**
- 2. **Before each use,** inspect the general condition of the Generator and Engine. Check for loose screws, misalignment or binding of moving parts, cracked or broken parts, loose hose connections, and any other condition that may affect the safe operation of the Generator and Engine. If abnormal noise or vibration occurs, have the problem corrected before further use. **Do not use damaged equipment.**
- 3. **Generator maintenance:** Keep the Generator clean and dry at all times. The Generator should not be operated or stored in locations that include excessive moisture, dust, flammable or corrosive vapors. If these substances are on the Generator, clean with a cloth or soft brush. Do not use a garden hose or anything with liquid to clean the Generator. Liquid may enter the cooling air slots and could damage the interior workings of the Generator.
- 4. **Engine maintenance:** Refer to the Engine manufacturer's *"Operation, Maintenance, and Parts"* manual (included) for detailed information about starting, running, stopping, and maintaining the Engine.
- 5. **When storing the Generator,** make sure to store the unit in a clean, dry, safe location out of reach of children and other unauthorized people.
- 6. **CAUTION!** All maintenance, service, or repairs not mentioned in this manual must only be performed by a qualified service technician.

TROUBLESHOUTING						
Problem	Possible Cause	Possible Solution				
Engine will not start.	1. Low on fuel or oil.	1. Add fuel or oil. (See pages 8 & 9.)				
	2. Engine power switch is in the OFF position.	2. Turn engine power switch to the ON position. <b>(See page 11.)</b>				
	3. Faulty spark plug.	3. Replace spark plug. (See Engine manual.)				
	4. Choke in wrong position.	<ol> <li>Properly adjust choke.</li> <li>(See page 13.)</li> </ol>				
	5. Fuel valve lever in CLOSED position.	5. Turn fuel valve lever to OPEN position. <b>(See page 13.)</b>				
	6. Generator loaded during start-up.	<ol> <li>Remove load from Generator.</li> <li>(See page 14.)</li> </ol>				
	7. Spark plug wire loose.	<ol> <li>Attach wire to spark plug.</li> <li>(See Engine manual.)</li> </ol>				
	8. Fuel line clogged.	8. Clean fuel line and fuel filter. (See Engine manual.)				
	9. Faulty ignition system.	<ol> <li>Have a qualified technician check ignition system.</li> </ol>				
No electrical output.	1. Faulty outlet.	<ol> <li>Have a qualified technician check outlets.</li> </ol>				
	2. Circuit breaker tripped.	2. Depress circuit breaker and reset. (See page 11.)				
	3. Defective capacitor.	<ol> <li>Have a qualified technician check capacitor.</li> </ol>				
	4. Faulty power cord.	4. Repair or replace cord.				
Repeated circuit breaker	1. Overload.	1. Reduce load. (See page 14.)				
tripping.	2. Faulty cords or equipment.	2. Check for damaged, bare, or frayed wires on equipment. Repair or replace.				
Generator overheating.	1. Generator overloaded.	1. Reduce load. (See page 14.)				
	2. Insufficient ventilation.	2. Move to adequate supply of fresh air. (See page 10.)				

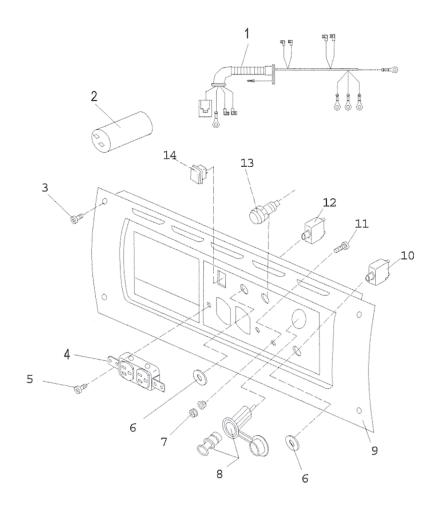
## TROUBLESHOOTING

## PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFAC-TURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACE-MENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISKS AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

## PARTS LIST & ASSEMBLY DIAGRAM - CONTROL PANEL

Part #	Description	Qty.	Part #	Description	Qty.
1	Wiring Harness Assy.	1	8	12V DC Outlet	1
2	Capacitor	1	9	Control Panel	1
3	Screw (ST4.2x13)	4	10	DC Circuit Breaker	1
4	120V AC Outlet	2	11	Ground Bolt (M4x12)	1
5	Screw (M4x10)	2	12	AC Circuit Breaker	1
6	Circuit Breaker Nut	2	13	Power On Light	1
7	Grounding Nut (M4)	2	14	Engine Power Switch	1

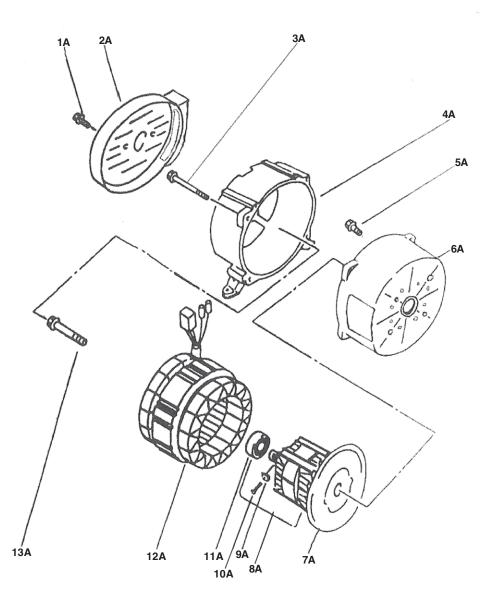


NOTE: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.

For technical questions, please call 1-800-444-3353 PAGE 17

## PARTS LIST & ASSEMBLY DIAGRAM - GENERATOR ASSY.

Part #	Description	Qty.	Part #	Description	Qty.
1A	Flange Bolt (M5x10)	2	8A	Rotor Assy.	1
2A	End Cover	1	9A	Rectifier	1
ЗA	Flange Bolt (M6x85)	4	10A	Screw	1
4A	Rear Cover	1	11A	Bearing (6202)	1
5A	Flange Bolt (M8x20)	4	12A	Stator Assy.	1
6A	Front Cover	1	13A	Flange Bolt (M8x175)	1
7A	Fan Blade	1			



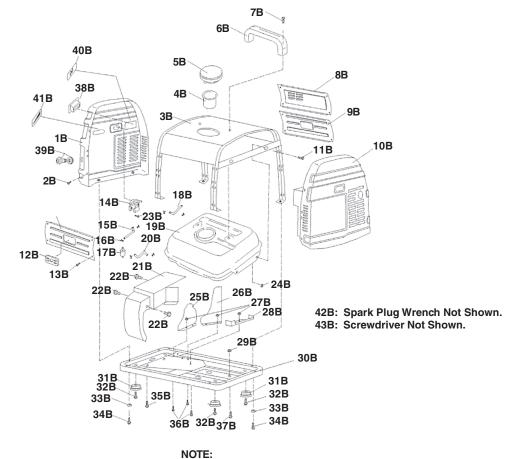
NOTE: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.

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## PARTS LIST & ASSEMBLY DIAGRAM - BODY/FUEL TANK ASSY.

Part #	Description	Qty.	Part #	Description	Qty.
1B	Left Housing	1	23B	Screw (M4x10)	1
2B	Screw (ST4.2x13)	16	24B	Nut (M6)	4
3B	Fuel Tank	1	25B	Air Shroud (1)	1
4B	Fuel Filter	1	26B	Air Shroud (2)	1
5B	Fuel Cap	1	27B	Nut (M5)	5
6B	Handle	1	28B	Air Shroud (3)	1
7B	Screw (M6x25)	2	29B	Nut (M8)	21
8B	Cover (1)	1	30B	Base	1
9B	Cover (2)	2	31B	Insulator	4
10B	Right Housing	1	32B	Bolt (M8x25)	4
11B	Bolt (M6x16)	4	33B	Rubber Spacer	8
12B	Oil Dipstick Cover	2	34B	Screw (M6x20)	8
13B	Screw (ST4.2x13)	12	35B	Bolt (M8x20)	2
14B	Fuel Cock	1	36B	Screw (M5x12)	5
15B	Fuel Hose (1)	1	37B	Bolt (M8x40)	2
16B	Clip	6	38B	Throttle Lever Enclosure	1
17B	Fuel Hose (2)	1	39B	Pull String Guide	1
18B	Fuel Hose	1	40B	Choke Label	1
19B	Fuel Tank	1	41B	Run/Stop Label	1
20B	Fuel Hose (3)	1	42B	Spark Plug Wrench	1
21B	Engine Air Shroud	1	43B	Screwdriver	1
22B	Bolt (M6x10)	3			



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